

The Relationship Between the Personality Traits of Entrepreneurs and Their Decision-Making Process: The Role of Manufacturing SMEs' Institutional Environment in India

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Abstract

The objective of the current research is to investigate and pinpoint the expected impacts of specific personality characteristics of entrepreneurs (i.e. their goal orientation and risk propensity) on the decision-making process concerning the growth and development of their new ventures. Moreover, it explores the mediating role of risk propensity in the relationship between the personality characteristics of entrepreneurs and their decision-making process, as well as the moderating influence of the institutional environment on the relationship between risk propensity and the decision-making process of SMEs. Data has been gathered via a single cross-sectional survey with a structured questionnaire administrated to 182 Indian entrepreneurs. Partial least squares structural equation modelling (PLS-SEM) has been used to test the proposed hypotheses and analyse the empirical results of the study. The overall findings of the present study indicate that entrepreneurs' personality traits have a considerable effect on their decision-making process regarding their new business models. Furthermore, the empirical evidence supports the moderating effects of the institutional environment.

Key words

entrepreneurs, goal orientation, locus of control, institutional environment, decision-making process.

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Introduction

Entrepreneurship development has attracted the attention of researchers, academicians, and practitioners for several decades (Bag

and Omrane, 2021; Kuckertz and Prochotta, 2018; Meyer and Hamilton, 2020). More specifically, during the last couple of years,

the governments of many countries have placed special emphasis on entrepreneurs' growth and their contribution to the economic development of nations. From the same perspective, numerous investigations and writings, undertaken in several research areas such as strategy, economics, and psychology, have been dedicated to exploring and analysing the relationship between specific entrepreneurial characteristics and their decision-making processes regarding new venture creation and development (Mitchell et al., 2007; cited by Shepherd and Patzelt, 2017). Economic theory focused on the outcome-based approach for understanding the phenomenon of new venture creation. Although this approach is useful in "identifying what entrepreneurship is and when it occurs, it does not address the fundamental questions of 'how' and 'why' of entrepreneurship" (Mitchell et al., 2007) and whether "there are any set of unique characteristics to all entrepreneurs that distinguish them from non-entrepreneurs?"

Therefore, researchers have turned to the trait-based approach. Both scholars and practitioners have made attempts in this direction over the past five decades. However, researchers were unable to establish a set of psychological characteristics and qualities that are unique and common to all entrepreneurs (Antonicic et al., 2015; Omrane and Fayolle, 2011; Shir et al., 2019). By way of illustration, Jain and Ali (2012) found that the personalities and psychological characteristics of 134 Indian entrepreneurs, i.e. their (1) goal orientation, (2) innovativeness, (3) locus of control, (4) risk-taking propensity, (5) proactiveness, and (6) self-efficacy, are weakly associated with their overall success, while their risk-taking propensity has no significant effects on their entrepreneurial behaviour.

Based on the above observations, several studies have concluded that the personality traits of entrepreneurs are not the most useful predictors of their behaviour (Ryan and Deci, 2017). Many researchers have even ad-

vocated abandoning this research orientation (Delgado García et al., 2015). However, as Chen et al. (2015) and Church et al. (2012) stated: "though there is considerable controversy in the field of psychology concerning the ability of personality traits to explain the behavioural tendencies, it is accepted by many scholars that such traits do exist, and that they are stable over time" (Herron and Robinson, 1993). That is why, despite such criticism, the personality-trait approach remains meaningful and promising for many researchers (e.g. Bakotic and Kruz'ic, 2010; Kessler et al., 2012).

Among a multitude of entrepreneurial psychological attributes, only goal orientation (McClelland, 1987) and locus of control (Rotter, 1966) were considered impactful across several studies (Arkorful and Hilton, 2021; Tentama and Abdussalam, 2020). Goal orientation refers to the capability of doing something better and faster than others do. It additionally underlines how an individual's existing frame of mind and spirit is positioned towards attaining his expected goals (McClelland, 1987; Taormina and Lao, 2007; Remeikiene et al., 2013).

Locus of control refers to the individual's belief that events result from their actions (Rotter, 1966; Zhao et al., 2010). According to Di Zhang and Bruning (2011), creating and running a venture in a competitive environment is a challenging adventure that requires an entrepreneur to believe that his/her own success/or failure is the result of his/her actions.

It appears, then, that the two personality characteristics listed above play an important role in predicting the business decision-making process regarding the creation of a new venture (Hansemark, 2003). However, Shepherd and Krueger (2002) demonstrated that, in addition to these personality traits, some other specific factors, such as perception, attitude, and intention, might explain the entrepreneurial decision-making process. Later, Shepherd et al. (2015) pinpointed other

explanatory entrepreneurial characteristics such as positive affect, self-efficacy, self-perception, or metacognitive thinking.

Moreover, it is important to consider the mediating and moderating effects of many contextual factors (Simon and Houghton, 2002), essentially as findings pertaining to the relationship between personality traits and the start-up process could be inconclusive. It is thus relatively unfeasible to include all the mediators and moderators simultaneously (Krueger, 1993). For this reason, the present study considers only one mediator (risk propensity) and one moderating factor (institutional environment) by means of which to systematically explore and test the effects on decision-making processes regarding new ventures. From this perspective, it has been argued that risk-taking is an important lever for business creation and development (Mullins et al., 2002). It is viewed as a multifaceted personality trait that significantly influences new venture decision processes. Therefore, people who tend to take risks are more predisposed to initiate their businesses (Kannadhasan et al., 2014; Shaver and Scott, 1991). The extant literature emphasised that risky decisions are impacted by an individual's predisposition towards risks (Bromiley and Curley, 1992) rather than by circumstances alone. There is a significant relationship between an individual's attitude towards risk-taking and strategic choices (Josien, 2012).

Entrepreneurs are endowed with certain characteristics or traits that differentiate them from others (e.g. Mahboobi and Sharifzadeh, 2013; Sheikhan, 2011; Shane, 2000; Westhead and Wright, 1998). An entrepreneur with higher motivation is more likely to take moderate risks. In this orientation, this study attempts to understand the role of risk propensity as a mediator of the relationship between specific traits of entrepreneurs (i.e. goal orientation and locus of control) and their decision-making processes. However, it seems that mixed views could not lead to a common consensus in this direction.

On the other hand, most prior studies attempted to understand the entrepreneurial process from various perceptual lenses. For example, it was documented that the institutional environment or a conducive work environment policy alone does not yield more new venture creation and development (Kannadhasan et al., 2014). This might explain why previous researchers carried out their investigations in isolation and did not include environmental factors through an integrative framework (Baum et al., 2001) that explores their effects on the start-up processes.

In 2017, India was ranked 37th out of 125 countries in the global start-up ecosystem (Ecosystem, 2018). It was argued then that the rising number of entrepreneurs, incubators, and multinational corporations might lead to rapid economic growth. More specifically, the number of start-ups in India was expected to reach 60,000 by 2025 (Ministry of MSMEs, India). Nevertheless, despite their solid growth figures, it is noteworthy that Indian start-ups have several environmental challenges to address. Indeed, those start-ups are generally funded once they have a working product and a proven business model, and have already begun to generate revenue. By contrast, for US companies, the institutional environment is far more conducive to translating difficulties into opportunities. In other words, in such an environment, firms can prove their value proposition and test their products extensively before launching them on the market (Yadav, 2016). The important question in this regard is: "How do environmental factors interact with personal features to determine the start-up process?"

The interaction between entrepreneurs and their institutional environment is required, as entrepreneurs expect to evolve in an ecosystem, which fulfils their needs and induces or reinforces their desire to go into business, thereby facilitating the process of new venture creation (Korunka et al., 2003). The major challenge for start-uppers is to have a supportive ecosystem, enabling

them to make the best decisions for the optimal operation and development of their business. In other words, success/failure in the start-up development process is determined by the interaction between entrepreneurs and their environment. From the same perspective, individuals with less ecological values portray less or no interest in activities that encourage the protection of their environment (Bhuiyan and Sharma, 2017). Moreover, the establishment and prosperity of their ventures may also depend on their individual personality and characteristics (Wang et al., 2016).

In this orientation, the present study attempts to shed some light on the interplay between the personality characteristics of entrepreneurs and their environment, involving other Indian start-ups. Its main contributions are as follows: (a) it responds to the controversy about the overall significant influence of specific entrepreneurial characteristics; (b) it elucidates the relationship between personal characteristics and decision-making processes; and (c) it further reveals the significance of the interaction effect of the institutional environment on personality characteristics and decision-making processes.

1. Theoretical framework and hypothesis development

Although the characteristics approach often supports entrepreneurial personality, theoretical progress in this area remains limited. Most studies applied the trait approach, which did not sufficiently consider the dynamics of the start-up process and the interactions between personal and situational determinants, consequently inappropriately reducing the complexity of the start-up process. However, recent research added a new perspective to explain the entrepreneurial intent, namely viewing trait theory from an interactionist perspective that explains behaviour as a result of the configured interaction of personal and situational/enviromen-

tal factors (Korunka et al., 2003). Therefore, personal features alone do not sufficiently determine the start-up process. Rather it is the interaction effects of the institutional environment with personal characteristics that explain the strength of associations. Therefore, the institutional environment is included as a moderator to examine the interaction effects with risk propensity.

1.1. Goal-oriented entrepreneurs and their propensity to take risks

Goal orientation (GR) refers to the unconscious motive disposition (Langan-Fox and Roth, 1995), and has been viewed as the most crucial characteristic of human personality (Elali and Al-Yacoub, 2016). It has also been considered one of the most promising approaches to entrepreneurship psychology as it helps identify and distinguish an entrepreneur from others (Shane and Venkataraman, 2000). Goal orientation has also largely served to identify an entrepreneur as it is culturally acquired and might be cited as a key psychological attribute of entrepreneurs. Typically, entrepreneurs are distinctively different from managers regarding task orientation. They place greater emphasis on the stated requirements of the role rather than a single motive. Previous studies indicate that successful entrepreneurs have a strong need for achievement (Hansemark, 2003; Lau and Busenitz, 2001; Meyer, 2019; Rauch and Frese, 2007; Wu et al., 2007). Similarly, specific personality traits such as risk-taking propensity might be importantly related to start-uppers' intentions and behaviours yielding entrepreneurial success (Auer Antoncic et al., 2018). Typically, individuals who have greater need for achievement tend to take greater risks than those with lower requirements. This line of thought was confirmed by Sagie and Elizur (1999) as well as Stewart and Roth (2001), who opined that risk-bearing is an essential quality for entrepreneurs. In other words, entrepreneurship demands one cope with less structured, more uncertain out-

comes of every decision and bear responsibility for his ultimate choices and decisions. Accordingly, entrepreneurs who have a higher propensity to manage risks can exploit the opportunities better than others can (Read et al., 2009). In simple words, an entrepreneur who has a substantial need for achievement is more predisposed to take important risks, even if the situations are full of uncertainty. Therefore, it is expected that:

H1: Goal-oriented entrepreneurs are more predisposed to taking risks.

1.2. The correlation between entrepreneurs' locus of control and their risk propensity

Locus of control (internal and external) is a concept raised by Rotter (1966), who believed that individuals try to control the important aspects of their life, assimilating the meaning of control to the sense of 'a generalised expectation' of victory and rewarding achievement (Lefcourt, 2014). However, hardiness of control is located on a vector between two internal and external extremes. Individuals who believe that positive outcomes can be achieved via their hard work tend to manage their destiny well. They are internally guided and might be responsible for their overall life events (Schultz and Schultz, 2005, quoted by Seyed Mohammadi, 2013). More specifically, many practitioners and researchers have underlined that hardiness and locus of control can be raised via Taekwondo because the mental, moral and physical culture may contribute to the growth and development of a healthy character focused on accepting responsibilities, modesty and the overall ability to control situations via resilient strategies.

On the other hand, locus/hardiness of control is considered a sustainable personality structure (Rauch and Frese, 2007). It consists of three main parameters related to commitment, control and challenge. Diligent people feel more committed to taking responsibility in their own hands. They believe that they can manage the different situations they encoun-

ter and sustain required efforts to reach their objectives by perceiving life changes as opportunities rather than threats, used to progress and evolve (Asante and Affum-Osei, 2019). Self-confidence, then, increases independence and improves performance as it creates opportunities in the course of life tensions to face it effectively and grow personally. As a result, it leads to better intellectual, emotional, coherent and stable behavioural functions (Bartone, 2006). From this perspective, it seems that some concepts have been stated as similar to hardiness, such as locus of control, a sense of coherence (Antonovsky, 1987), self-efficacy (Doanh and Bernat, 2019; Fuller et al., 2018), optimism (Scheier and Carver, 1988) and resilience (Connor and Davidson, 2003, quoted by Alizadeh, 2013; Omrane, 2020).

H2: Entrepreneurs' locus of control positively influences their risk propensity.

1.3. The correlation between entrepreneurs' risk propensity and their decision-making process regarding their new ventures

The existing literature suggests that risk propensity is the most discussed trait among entrepreneurs (Miao, et al., 2016; Zhao et al., 2005). An individual who tends to take risks is more likely to form a new venture than someone averse to doing so (Kannadhasan and Nandagopal, 2010). As discussed above, those with higher risk-taking propensity are more likely to exploit opportunities than others and to start riskier new businesses (Shepherd et al., 2015). However, risk-taking propensity is a double-edged sword. For instance, "an individual who does not have high risk propensity might unknowingly be involved in risky ventures if s/he perceives less risk than others do" (Simon et al., 2000, 113). For this reason, Ahmad Gill et al. (2021) pointed out that entrepreneurs scan their internal and external environments to search for and gather information that fosters their entrepreneurial alertness. This alertness will in turn influence their intention to start

a new venture and shape their decision-making behaviour (Neneh, 2019a-b).

Similarly, Antoncic et al. (2018) have already stated that an increased risk propensity level would influence entrepreneurs' intentions and behaviours and then enact venture creation and development. From the same perspective, another study undertaken by Baum and Locke (2004) confirmed that entrepreneurs' risk propensity might lead to disaster if those risks are taken within an irrational process.

Conversely, there is a positive relationship between mean annual growth in sales and lower risk-taking propensity (Miner et al., 1989). Forlani and Mullins (2000) opined that entrepreneurs preferred positive outcomes achieved with low variable venture risks rather than those that might engender high risks. Therefore, the following hypothesis can be proposed as follows:

H3: Entrepreneurs' risk propensity is negatively related to their decision-making process.

1.4. The moderating effect of the institutional environment on the relationship between entrepreneurs' risk propensity and their decision-making process

Entrepreneurs do not work in isolation. Their behaviour is derived from and in response to the various environmental forces. For instance, the competitive strategy of any business is a response to the actions of competitors (Porter and Teisberg, 2006). Moreover, many scholars such as Giacalone and Jurkiewicz (2003; cited by Chongvisal, 2020) have stressed that workplace spirituality, referring to the spread of spiritual values at work, improves the ethics and decision-making of employees, and leads then to wellness and success at work. Similarly, the start-up process is contingent upon the environment where they operate the business (Audretsch, 1991).

The institutional environment consists of guidelines, procedures, rules, and values

that causes an individual to act or refrain from taking actions and decisions in his life (North, 1991; Sambharya and Musteen, 2014). The institutional framework has a significant influence on the survival of start-ups and the growth of a business. In addition, it has a major impact on the rate and nature of entrepreneurial activities (Chiles et al., 2007). The institutional framework facilitates and motivates the entrepreneurial activity with policies conducive to pursuing a new venture.

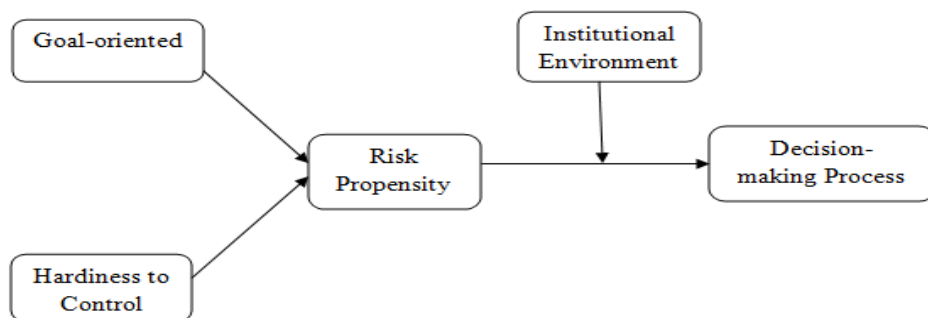
The government of India has placed strong emphasis on encouraging and developing initiatives that support entrepreneurs with several business-friendly policies. For example, India has jumped from 30th position in 2018 to 23rd position in 2020 out of 100 countries and become the 63rd-ranked country in the world in terms of the ease of doing business (The World Bank Group Flagship Report, 2020). Those motivating policies may enhance the number of entrepreneurial activities and the likelihood of creating new ventures (Peng and Zhou, 2005). Dubini (1989, 11) opined that a "highly munificent [sic] environment is characterised by a strong presence of family businesses and business models, rich infrastructure, and availability of skilled resources, a solid financial community, and governmental incentives to start a new business". This definition is consistent with those of Bacq et al. (2017) and Korunka et al. (2003). Entrepreneurs may get moral assistance from more experienced counterparts, whereas financial assistance comes from the other external stakeholders. This assistance is required not only for start-ups but also for further growth and expansion (Gnyawali and Fogel, 1994). The relationship between risk propensity and the decision-making process is contingent upon the environment in which the business is going to exist. Supposing the environment provides the required financial assistance and other support for entrepreneurs, the entrepreneurial process is relatively easy, and one can expect better performance regardless of the level of strategy (Tang and Tang, 2007).

A higher-level institutional environment has many advantages such as enhanced performance due to abundant resources, the availability of experts and skilled workers, etc. On the contrary, the lack of financial availability or indeed the unavailability of experts and the workforce would occur in an environment with low levels of institutional support. Based upon the above discussion, the current study proposes the following hypothesis:

H4: The institutional environment moderates the relationship between entrepreneurs' risk propensity and their decision-making process.

Considering all the observations above, the model presented hereafter depicts the main variables of the present research and the formulated hypotheses that were proposed to test the relationships between them.

Figure 1. Theoretical model



2. Methodology

2.1. Sample and data collection

The empirical research was performed in a rich cultural context, which implies that samples were drawn from registered manufacturers of handicrafts which are categorised as Small and Medium Enterprises (SMEs) in India. Details pertaining to the enterprises were collected from the District Industries Centre (DIC), including three districts of West Bengal. All obtained responses were collected through a self-administered structured questionnaire based on a random sampling method, aiming at reaching out the personality characteristics of entrepreneurs and analyse their decision-making process. A total of 200 questionnaires were distributed to the selected manufacturing enterprises. A total of 188 completed responses were received and considered for this study, with a response rate of 94%.

Upon collection, the surveys were checked for incomplete data, which refer to missing values. There was only one incomplete survey, and the corresponding respondent/value was excluded from the empirical analysis. In the next stage, the univariate outliers were detected through Z-score values (values $> \pm 3.29$). Similarly, multivariate outliers were checked through the Mahalanobis distance for the independent variables (Pallant, 2011). It was found that five outliers (three univariate and two multivariate ones) were detected and therefore excluded from further analysis. The final sample size retained was $N = 182$.

2.2. Measurement scales

The measurement scales for the latent variables of the theoretical model of our investigation were retrieved from prior research studies with a slight modification undertaken to better fit the research content. Several minor changes were mainly made to wording related to formatting sentences of cer-

tain items to make them more precise. More specifically, the variable ‘goal orientation’ was measured by five indicators adapted from Heckert et al. (2000) and Di Zhang and Bruning (2011). ‘Hardiness to control’ was also assessed via a five-item scale, as recommended by Rotter (1966) and Di Zang and Bruning (2011). Similarly, ‘entrepreneur’s risk propensity’, which mediates the association between goal orientation and hardiness to control and the decision-making process, was measured via five indicators, with reference to the ‘risk style’ scale established by Schneider and Lopes (2009), with a minor change made to fit the research context. The moderating variable representing ‘the institutional environment’ was assessed via six items, as suggested by Busenitz et al. (2000). Finally, the five-item scale proposed by Chandler and Hanks (1993) was adopted for the decision-making process.

It is noteworthy that a five-point Likert reflective measurement scale, ranging from “strongly disagree” to “strongly agree”, was applied to measure all the latent variables of the present study. Furthermore, the proposed relationships were examined via using partial least squares path modelling (PLS-PM). Indeed, the PLS-PM approach (Westland, 2010, 476) was chosen to represent a well-established and widely employed method in business and applied social sciences (Henseler et al., 2016; Bag et al., 2020b). This technique, suitable for prediction-orient-

ed objectives, does not require normal data distribution and accommodates even small sample sizes (Chin and Newsted, 1999). Additionally, multiple variables can be considered simultaneously in a single analysis.

3. Results and Discussion

3.1. Assessment of the Outer Model (reliability and validity)

For the convergent validity, the reliability and validity of the constructs were employed to predict the outer model (Chin, 2010). More precisely, Cronbach’s alpha (λ) and the Composite Reliability (CR) were calculated to assess the reliability for the constructs. Their corresponding values were greater than the threshold of 0.7 (Nunnally and Bernstein, 1994) for all cases. The results of construct correlations, Cronbach’s alpha, CR and AVEs were presented in Table 1. Besides, every item has an individual reliability above the threshold values (i.e. the square of outer loading > 0.4) (Hulland, 1999). The construct correlations indicated the correlations to /association with each other (Bag and Omrane, 2020). Concerning the AVE, the findings reveal that all the values were above 0.5, foreshowing a valuable convergent validity (Cohen, 2001; Hair et al., 2012). Therefore, the measurement model of the present study is satisfactory based on the evidence of the reliability and validity of its adequate constructs.

Table 1. Quality review of constructs

Constructs	No of items	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
Goal orientation	5	0.739	0.789	0.561
Locus of control	5	0.869	0.898	0.721
Decision making process	6	0.914	0.945	0.701
Risk propensity	5	0.818	0.846	0.658
INEN	5	0.878	0.903	0.735

Source: own elaboration

To assess the discriminant validity, two testing stages were carried out: (1) 'Heterotrait-Monotrait Ratio (HTMT)' and (2) 'Fornell-Larcker Criterion'. According to Henseler et al. (2016), the Heterotrait-Monotrait (HTMT) ratio should be significantly lower than the threshold value of 0.85 in order to establish discrimination between two factors. As shown in Table 2, the

Heterotrait-Monotrait (HTMT) ratio for all the correlation values was significantly lower than the conservative level (except for those among experiential quality and tackling of crowd, and the experiential satisfaction and experiential quality). Such values reveal that the discriminant validity might be ensured. Accordingly, the Fornell-Larcker test was performed.

Table 2. Discriminant Validity (2) Heterotrait-Monotrait (HTMT) ratio

Construct	Goal orientation	Locus of control	Decision-making process	Risk propensity	INEN
Goal orientation					
Hardiness to control	0.564				
Decision making	0.457	0.399			
Risk propensity	0.557	0.334	0.256		
INEN	0.436	0.407	0.571	0.430	

Source: own elaboration

To check the Fornell-Larcker criterion, it might be proved that the square root of the AVE of each latent construct exceeds the construct's maximum correlation with any other different construct (Fornell and Larcker,

1981). Table 3 illustrates that all correlation values were lower than the square root of AVE. Consequently, the discriminant validity might be ensured for all the constructs of the current research.

Table 3. Discriminant Validity (2) Fornell-Larcker Criterion

Constructs	Goal orientation	Locus of control	Decision-making process	Risk propensity	INEN
Goal orientation	0.561				
Locus of control	0.214	0.720			
Decision making	0.143	0.129	0.701		
Risk propensity	0.208	0.641	0.056	0.658	
INEN	0.121	0.127	0.263	0.142	0.735

Source: own elaboration

The measurement model was considered satisfactory with the evidence of adequate reliability and validity of all the constructs.

3.2. Assessment of the inner model

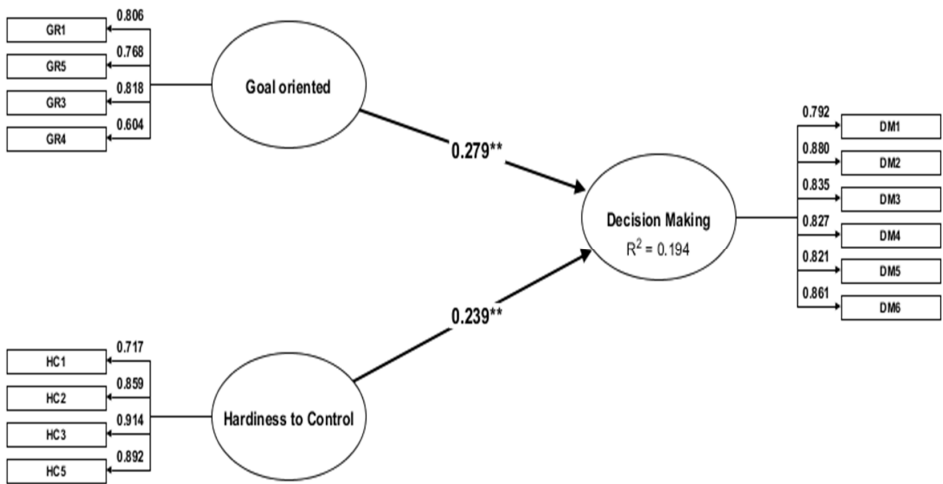
Upon evaluating the outer model, the inner model was examined to assess the explanatory power and the predictive relevance of the proposed research model. Moreover, the

strength of path coefficients and the significance of the hypothesised relationships were estimated. The main criterion for assessing the structural model in the PLS approach is the explained variance measured by R^2 . According to Chin (1998) and Bag et al. (2020a), R^2 values of 0.67, 0.33, or 0.19 imply substantial, moderate, or weak endogenous latent variables in the inner path model.

The present study used the simultaneous measurement of mediator effects (Iacobucci and Duhachek, 2003; Kannadhasan et al., 2018) because it gives robust results over the other methods (Helm et al., 2010). The measurement model without mediator and moderator variables has been presented in Figure 2, and results were outlined in Table 4. Such findings support the conclusion that goal orientation and hardiness to control positively correlate to the entrepreneurial

decision-making process. After introducing risk propensity, there are slight changes in the path coefficients, which remained statistically significant, including those related to goal orientation, hardiness to control and risk propensity. Thus, the overall results reveal that risk propensity mediates the association between goal orientation and hardiness to control and the entrepreneurial decision-making process (as shown in Figure 3 and Table 5).

Figure 2. Measurement model without a mediator and moderating variables



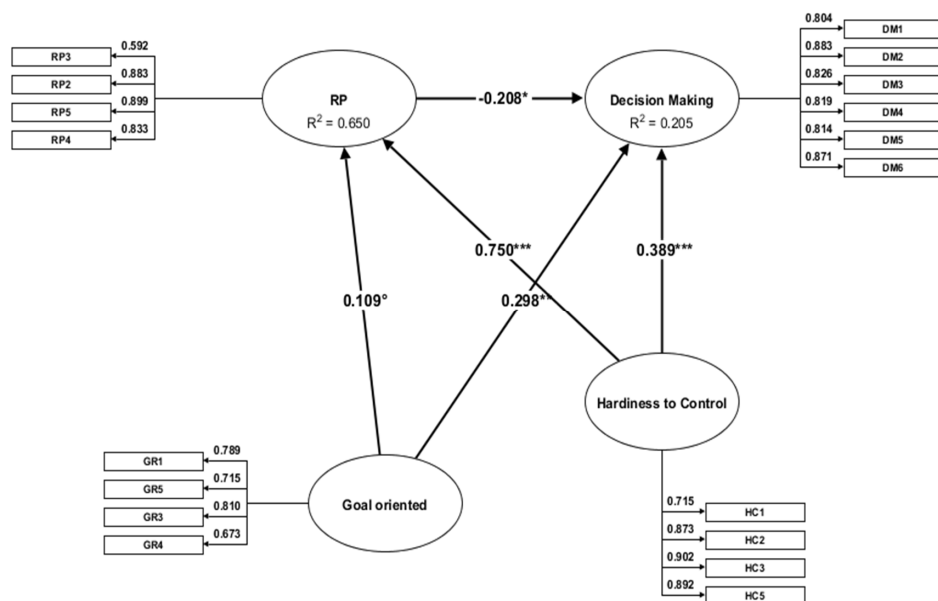
Source: own elaboration

Table 4. Results of the measurement model without mediator and moderator variables

Paths	Coefficients	SE	t statistics
Goal orientation → Decision-making process	0.279	0.088	3.161**
Hardiness to control → Decision-making process	0.239	0.086	2.773**

** Significant at the 1% level

Source: own elaboration

Figure 3. Measurement model with a mediator and without a moderator variable

Source: own elaboration

Table 5. Results of the measurement model with a mediator and without moderator variables

Paths	Coefficients	SE	t statistics
Goal orientation → Decision-making process	0.298	0.081	2.4809**
Goal orientation → Risk propensity	0.109	0.060	1.7992*
Hardiness to control → Decision-making process	0.389	0.094	3.7124**
Hardiness to control → Risk propensity	0.750	0.051	14.4510**
Risk propensity → Decision-making process	-0.208	0.090	-3.2716**

** Significant at the 1% level; *Significant at the 5% level

Source: own elaboration

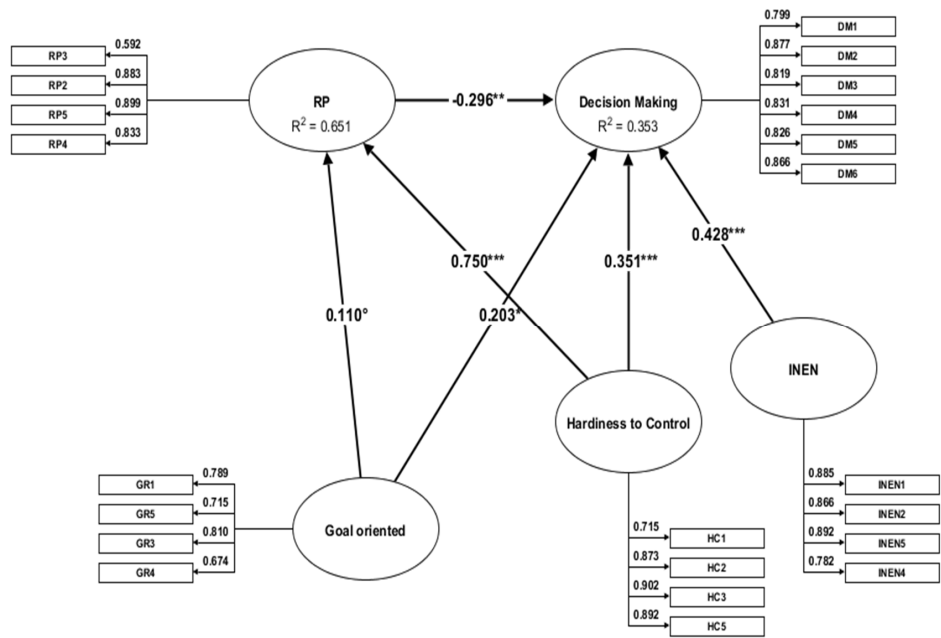
3.3. Testing interaction effects

This study applied the PLS-PM of the product indicator approach (Chin et al., 2003) to test the moderation effect. The institutional environment (four items) and risk propensity (four items) are multiplied to create a new construct called the moderation effect construct (sixteen items) (Chin et al., 2003; Fassott et al., 2016). The relationship between independent, dependent and moderating

variables is expected to be significant. The institutional environment has been introduced as a moderating variable in the model. The results reveal that the institutional environment has a significant effect on entrepreneurs' decision-making processes, which the value of R^2 has measured. After introducing the institutional environment, the R^2 value has increased, and the path coefficient is also significant at the 1% level (refer to Figure 4 and Table 6). To test the interaction effect,

the moderating effect construct was created by multiplying the institutional environment and risk propensity. It is also statistically significant (refer to Figure 5 and Table 7).

Figure 4. Measurement model with the mediator and moderator, but without the interaction effect

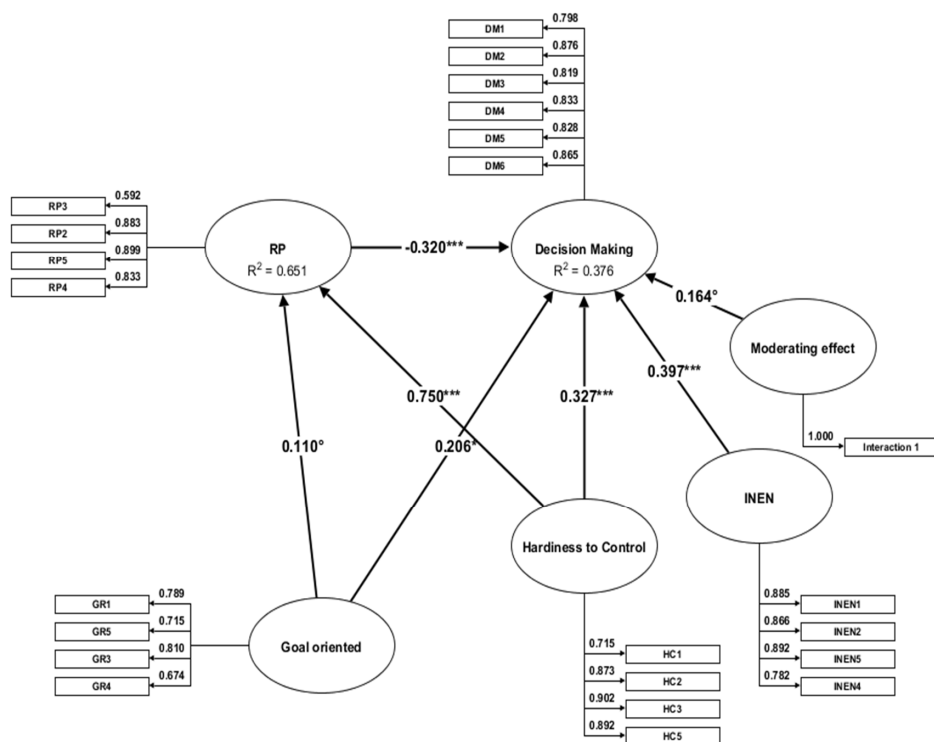


Source: own elaboration

Table 6. Results of the measurement model with the mediator and moderator, but without the interaction effect

Paths	Coefficients	SE	t statistics
Goal orientation → Decision-making process	0.203	0.085	2.408**
Goal orientation → Risk propensity	0.110	0.060	1.799*
Hardiness to control → Decision-making process	0.351	0.092	3.530**
Hardiness to control → Risk propensity	0.750	0.051	14.449**
Risk propensity → Decision-making process	-0.296	0.085	-3.728**
Institutional Environment → Decision-making process	0.428	0.091	4.339**

**Significant at the 1% level; *Significant at the 5% level

Figure 6. Measurement model with mediation and interaction effects

Source: own elaboration

Table 7. Results of the measurement model with mediation and interaction effects

Paths	Coefficients	SE	t statistics
Goal orientation → Decision-making process	0.206	0.0855	2.408**
Goal orientation → Risk propensity	0.110	0.0609	1.799*
Institutional Environment → Decision-making process	0.397	0.0915	4.339**
Moderating effect → Decision-making process	0.164	0.0931	1.760*
Hardiness to control → Decision-making process	0.327	0.0927	3.530**
Hardiness to control → Risk propensity	0.750	0.0519	14.449**
Risk propensity → Decision-making process	-0.320	0.0858	-3.728**

** Significant at the 1% level; * Significant at the 5% level

Source: own elaboration

Based on the above evaluation of the outer model and inner model of the proposed

study, the status of the hypotheses of the empirical analysis are presented in Table 8.

Table 8. Status of Hypotheses

Hypotheses	Status
<i>H₁: Goal-oriented entrepreneurs are more predisposed to taking risks.</i>	Supported
<i>H₂: Entrepreneurs' locus of control positively influences their risk propensity.</i>	Supported
<i>H₃: Entrepreneurs' risk propensity is negatively related to their decision-making process.</i>	Supported
<i>H₄: The institutional environment moderates the relationship between entrepreneurs' risk propensity and their decision-making process.</i>	Supported

Source: own elaboration

Conclusions

The objective of the present study is to assess the relationship between the personality characteristics of entrepreneurs (goal orientation, locus/hardiness of control, and risk propensity) and their decision-making process regarding their new ventures. In addition, this research investigates whether the institutional environment moderates the relationship between entrepreneurs' risk propensity and their decision-making process.

The results indicated that all paths linking goal orientation, locus of control, risk propensity and the decision-making process of entrepreneurs are statistically significant at the 5% level. Corroborating past findings (Hansemark, 2003), goal orientation and hardiness of control are important personality characteristics that reinforce the intention for new venture creation. More importantly, the present research indicated that the institutional environment moderates the association between the personality characteristics of entrepreneurs and their venture creation process. This finding reveals that entrepreneurs respond to the environment and do not operate in vacuums (Bouchikhi, 1993; Meyer and Krüger, 2021; Sambharya and Musteen, 2014).

On the other hand, the findings supported a direct relationship between goal orientation and the decision-making process. This result is similar to those of Collins et al. (2004). It also stressed that risk propensity plays a key role in the entrepreneurial decision-making process (Tang and Tang, 2007). There

is, then, a negative relationship between risk propensity and the decision-making process. Such findings contrast with earlier findings (Brockhaus and Horwitz, 1986), which concluded that risk propensity does not influence the entrepreneurial decision-making process. Corroborating previous findings (Baum et al., 2001; Bouchikhi, 1993; Tang and Tang, 2007), the personality of entrepreneurs and their institutional environment interact with one another to determine the new venture creation process.

To conclude, the current research explores the relationship between the personal characteristics of entrepreneurs and their decision-making process, aiming to provide some useful and promising recommendations for scholars and practitioners. First, policymakers are called upon to develop a supportive environment for existing and potential entrepreneurs to help them establish and expand their businesses. Moreover, proper motivations lead young entrepreneurs to adapt to new venture creation rather than employment. Understanding what motivates young entrepreneurs and how these motivations differ between risk-taking and risk-averse entrepreneurs is also important, as the result suggests that risk propensity has a negative association with the decision-making process. As entrepreneurship is the root of economic development of a country, governments and policy makers should focus on the various psychological factors, such as goal-orientation or locus of control, to encourage young people to be entrepreneurial.

Despite its relevant and promising insights to the existing literature, the present study contains several limitations, which open up new perspectives for upcoming investigations. Indeed, this research considered two key personality characteristics: goal orientation and locus of control. It could be extended by exploring other characteristics (e.g. self-efficacy, tolerance for ambiguity, and innovativeness (Shepherd et al., 2017)) and/or by adding social skills and capabilities (e.g. self-perception, emotional intelligence (Omrane, 2015)). Future investigations may also address other environmental factors that influence the relationship between psychological traits and new venture creation as either a mediator or moderator variable (e.g. cultural heritage, crisis (Shepherd, 2017)). Moreover, future studies could focus on how social capital, cultural differences, and social media impact entrepreneurial intentions and start-up processes (Ahmad Gill et al., 2021; Omrane, 2015).

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